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Water Quality
STATE DEPT. OF AGRICULTURE**ANIMAL WASTE MANAGEMENT PLAN**

for

EARNEST DOYLE

developed by USDA-NRCS on February 1, 1999

Introduction

This waste management plan is developed for the Earnest Doyle poultry operation located in sections 30 and 19, Township 17 North, Range 25 East in Adair County, Oklahoma. This plan calls for the application of phosphorus which exceeds that amount which will be used by the plants. Application is based on assimilation of phosphorus in the soil profile. Prolonged applications of poultry waste to the same area can increase phosphorus content in the soil profile. This plan is developed to provide guidance in the management of wastes from production to utilization in a manner that prevents or minimizes degradation of air, soil, and water resources.

Waste produced

Waste is produced in four houses containing a total of 20,500 turkeys. Litter is collected on the floor of the houses and decaked after each batch. A cake-out storage structure is planned to be built in 2000 if funds become available. Dead birds from normal mortality are disposed of in a composter located at the operation. Catastrophic losses will be buried in a pit located with assistance from the NRCS. Based upon December 1998 litter nutrient tests, the equivalent fertilizer values available for plant use of the animal waste to be applied is 65-84-59 (N-P₂O₅-K₂O) pounds per ton of litter. Litter analyses from this operation should be performed every three years.

Soil Nutrient Tests

Soil samples for fields 2,3,4 and 5 were taken in December 1998. These tests revealed that these areas should not have animal waste applied because the Phosphorus levels were higher than 400 lbs/ac. Field 2 had a P-index of 884 while field 3 was 728, field 4 was 811, and field 5 was 1064. If the soil P index on a field ever exceeds 220, soil tests must be completed annually before waste can be applied to that field. Soil samples should be taken according to OSU Fact Sheet No. 2207 at a depth of 6-8 inches.

Application areas

There are no fields available to accept animal waste.

Summary

According to estimates of litter production, 560 tons of animal waste will be produced from this operation annually. All 560 tons will need to be utilized off-site on soils that are capable of accepting animal waste. The producer plans to sell all of the litter produced at this operation and will not apply litter to his land.

Additional guidance

Every attempt has been made to identify acceptable litter application rates and areas for application on the plan map. However, the following guidelines must be followed in addition to the details on the plan map:

- Apply litter to fields at the specified rates in a uniform manner.
- Do not apply litter to areas with the water table less than 2 feet from the surface.
- Do not apply litter to areas with less than 10 inches of topsoil.
- Do not apply litter to areas within 50 feet of an intermittent stream.
- Do not apply litter to areas within 100 feet of a perennial stream, well, or pond.
- Do not apply litter when the soil is frozen or snow covered.
- Do not apply litter to eroding or gullying areas.
- Do not apply litter in areas which are frequently flooded.
- Keep records of when, where, and how much waste is applied.
- Have litter tested before any land application.
- Have soil tested once per year when P-index is greater than 220.
- Have soil tested once every three years when P-index is less than 220.

Use the following table to determine from soil tests the rate(s) at which to apply the waste:

SUMMARY OF WASTE APPLICATION RATES ON VARIOUS SLOPES AND SOIL P VALUES

<u>P value</u>	<u>0-8 percent slope</u>	<u>8-15 percent slope</u>
0-65	full rate	full rate, split applications
65-250	full rate	half rate
250-400	half rate	half rate
400 +	plant needs	plant needs

* No application on slopes greater than 15 percent.

Who to contact

In the event of a catastrophic death loss, contact the Director of Water Quality of the Oklahoma Department of Agriculture within 24 hours at 405-521-3864.

If there are significant changes in this operation, or more information is desired on any portion of this waste management plan contact the Natural Resources Conservation Service, Stilwell Field Office at 918-696-7612.